IACONO

Serial No. 10/651,075

Filed: August 28, 2003

REMARKS

The Examiner is thanked for the thorough examination of the present application. Independent Claims 39, 55, and 71 have been amended to address the Examiner's 35 U.S.C. \$101 rejection. In view of the amendments and arguments presented in detail below, it is submitted that the claims are patentable.

I. The Claimed Invention

The invention is directed to a method for incrementing, decrementing or two's complementing a first string of N bits. Independent Claim 39 recites a method comprising generating an auxiliary string of N bits as a function of the first string, the auxiliary string having a first least significant bit that is independent from the first string and any other bit of the auxiliary string. The generating is based on starting from a second least significant bit up to a most significant bit of the auxiliary string, and performing a first logic combination with a corresponding bit of the first string or a negated replica thereof. Claim 39 further recites that the generating is based on starting from a least significant bit up to a second most significant bit of the first string, and performing the first logic combination with a corresponding bit of the first string or the negated replica thereof less significant than the corresponding bit. Moreover, Claim 39 recites that selection of the first string or the negated replica thereof for the first logic combination is based on the incrementing, decrementing or two's complementing operation to be performed. An output string

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is generated as a second logic combination of the auxiliary string and of the first string the second logic combination and the selection of the first string or the negated replica thereof with the first logic combination determines whether the incrementing, decrementing or two's complementing operation is being performed on the first string, and stored to a memory.

Independent Claims 55 and 71 are directed to related apparatus claims.

II. The Claims are Patentable

The Examiner rejected independent Claims 39, 55, and 71 under 35 U.S.C. 101, taking the position that the claims were directed to non-statutory subject matter.

Independent Claims 39, 55, and 71 have been amended to more clearly demonstrate that they disclose practical applications with concrete, useful, and tangible results. These amendments are supported by the originally filed application.

Amended independent Claim 39 recites generating a signal representing an auxiliary string of N bits as a function of the first string. Additionally, Claim 39 recites generating an output signal containing a string. The circuit generates a signal representing information on which a calculation is to be performed and outputs a signal containing the results of that calculation. Thus, there are defined structural relationships between physical elements of the claim. Accordingly, Claim 39 discloses a practical application with a concrete, useful, and tangible result and is patentable.

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Amended independent Claim 55 recites an <u>auxiliary</u> circuit for <u>generating a signal</u> representing auxiliary string of N bits. Moreover, Claim 55 discloses <u>logic circuit</u> means for <u>generating an output signal</u> containing a string as a second logic combination of the auxiliary string and of the first string. The circuit generates a signal representing information on which a calculation is to be performed and outputs a signal containing the results of that calculation. Thus, there are defined structural relationships between physical elements of the claim. Accordingly, Claim 55 discloses a practical application with a concrete, useful, and tangible result and is patentable.

Amended independent Claim 71 recites a <u>logic selection</u> circuit receiving as input command signals for identifying an operation to be performed and for <u>generating first and second</u> <u>selection signals</u> whose logic state depends on the operation to be performed. Furthermore, Claim 71 recites logic circuit means for <u>generating an output signal</u> containing a string as a logic combination of the auxiliary string and of the first string. The circuit receives a signal representing information as an input, generates a signal representing information on which a calculation is to be performed, and outputs a signal likewise representing information. Thus, there are defined structural relationships between physical elements of the claim.

Accordingly, Claim 55 discloses a practical application with a concrete, useful, and tangible result and is patentable.

Accordingly, independent Claims 39, 55, and 71 are directed to patentable statutory subject matter. Their respective dependent claims, which recite yet further distinguishing

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features, are similarly patentable and require no further discussion herein.

III. CONCLUSION

In view of the amendments to the claims and the arguments provided herein, it is submitted that all the claims are patentable. Accordingly, a Notice of Allowance is requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,

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